

PROCESS TO MAKE DECISION ON WHEN TO ALTER UPSTREAM BURST PROFILE
BASED UPON PACKET LOSS PERCENTAGE USING HYSTERESIS THRESHOLDS

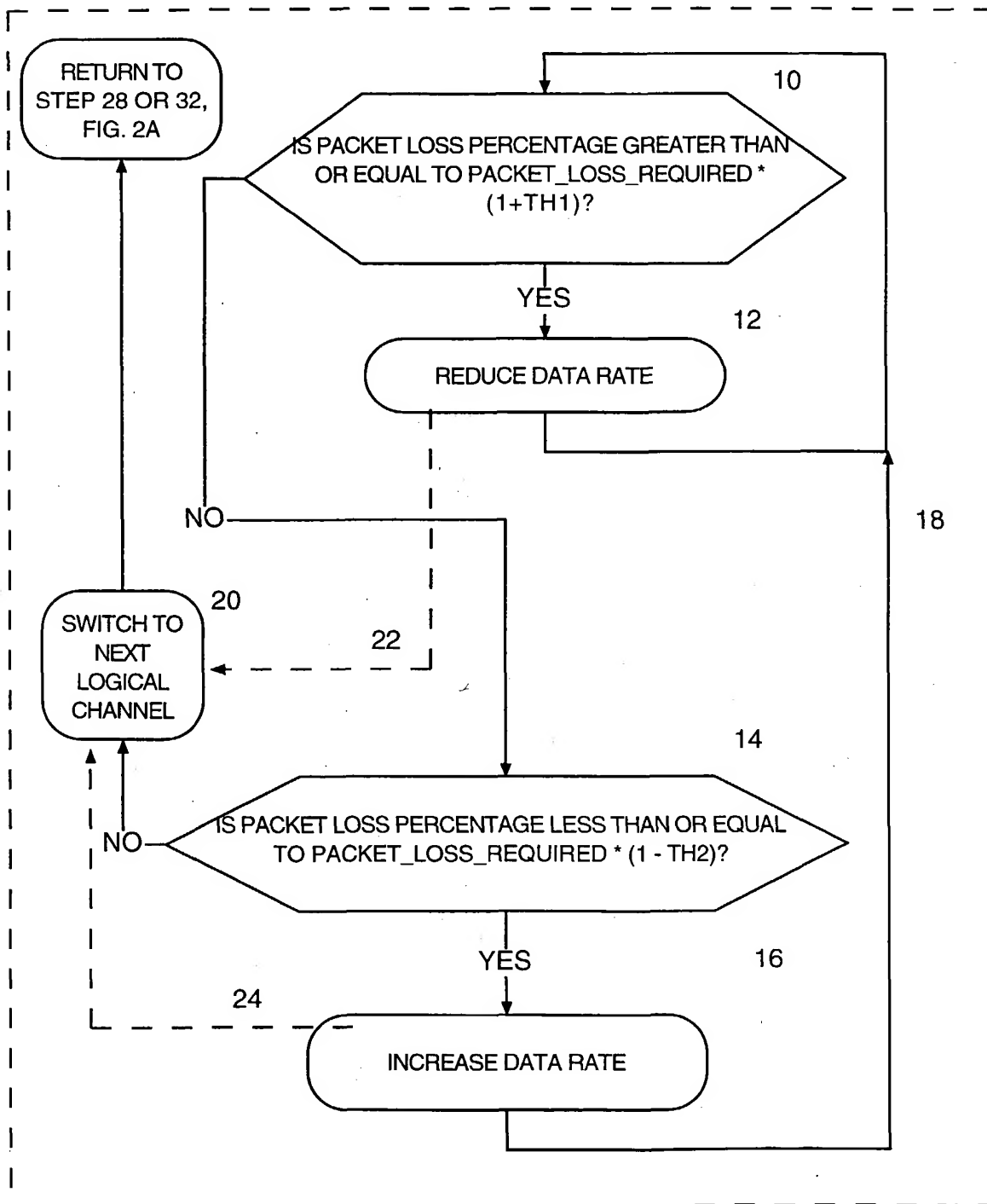


FIG. 1

CMTS PROCESSING FOR AUTOMATIC RATE ADAPTATION WITH CHANGING NOISE

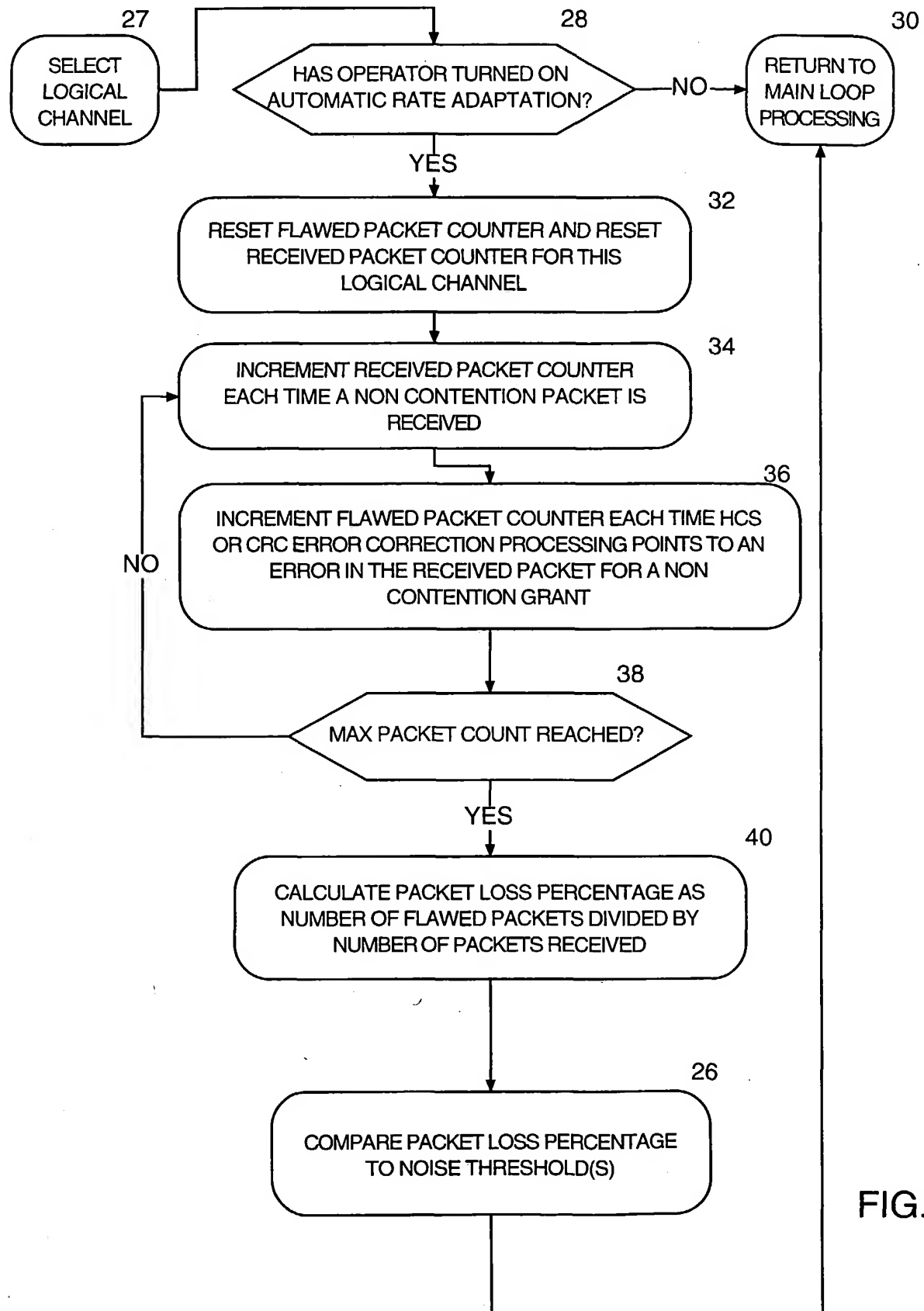


FIG. 2A

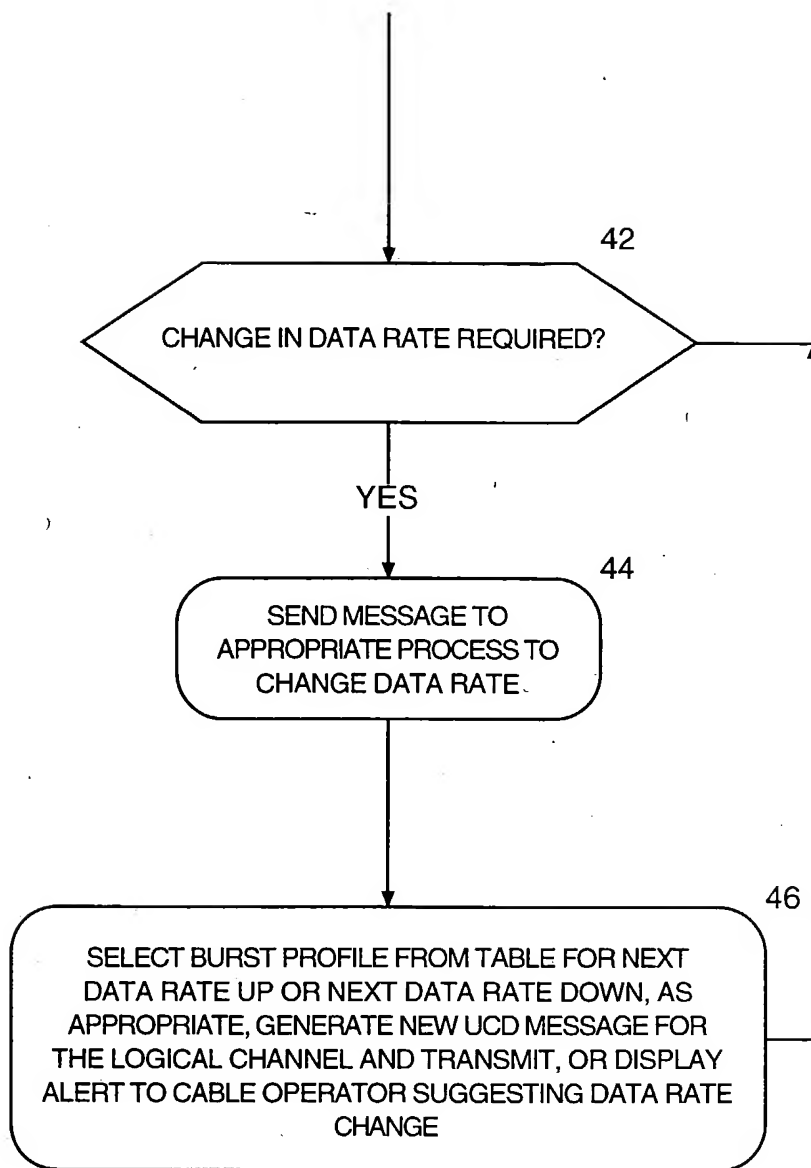


FIG. 2B

CMTS PROCESSING FOR AUTOMATIC RATE ADAPTATION WITH CHANGING NOISE

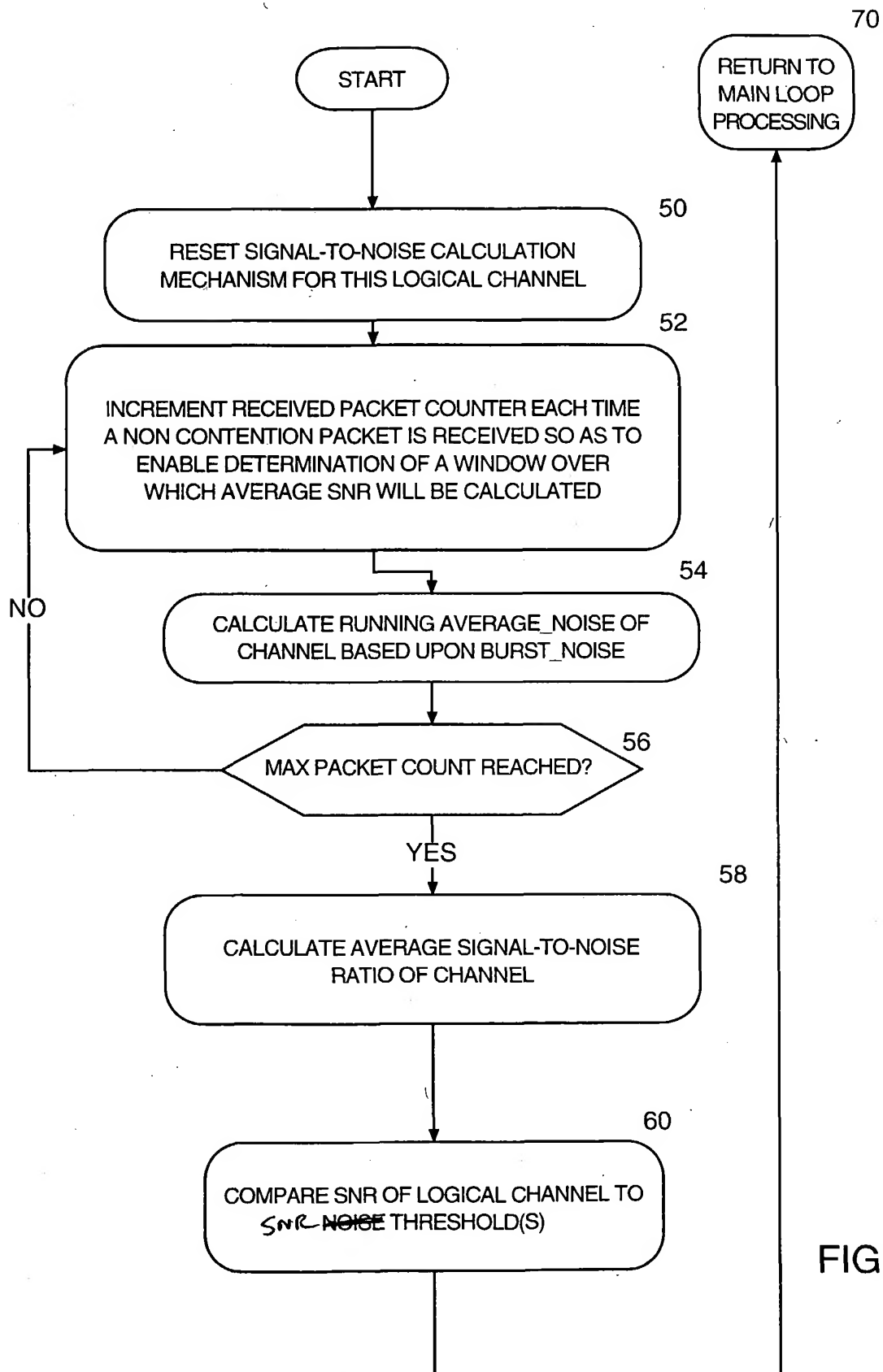


FIG. 3A

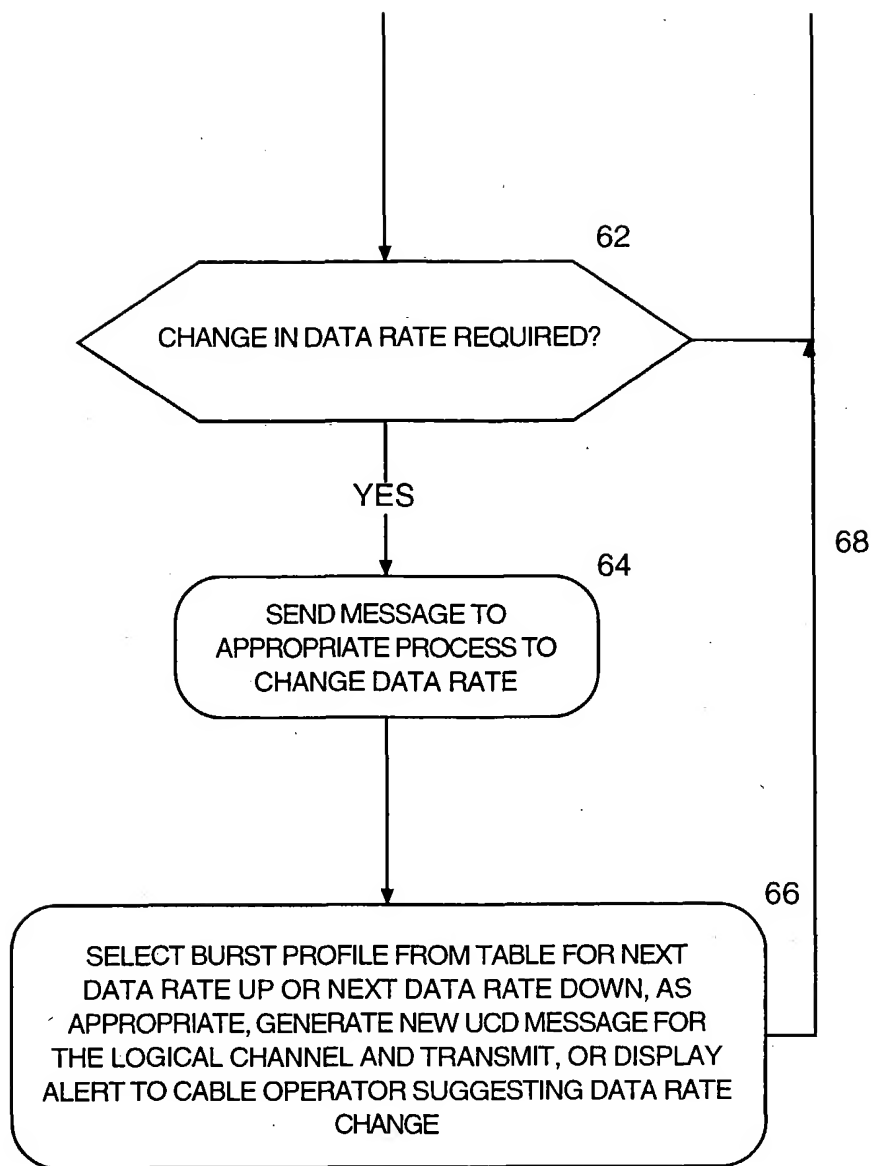


FIG. 3B

PROCESS FOR AUTOMATIC RATE ADAPTATION USING BIT ERROR RATE AND BYTE ERROR RATE

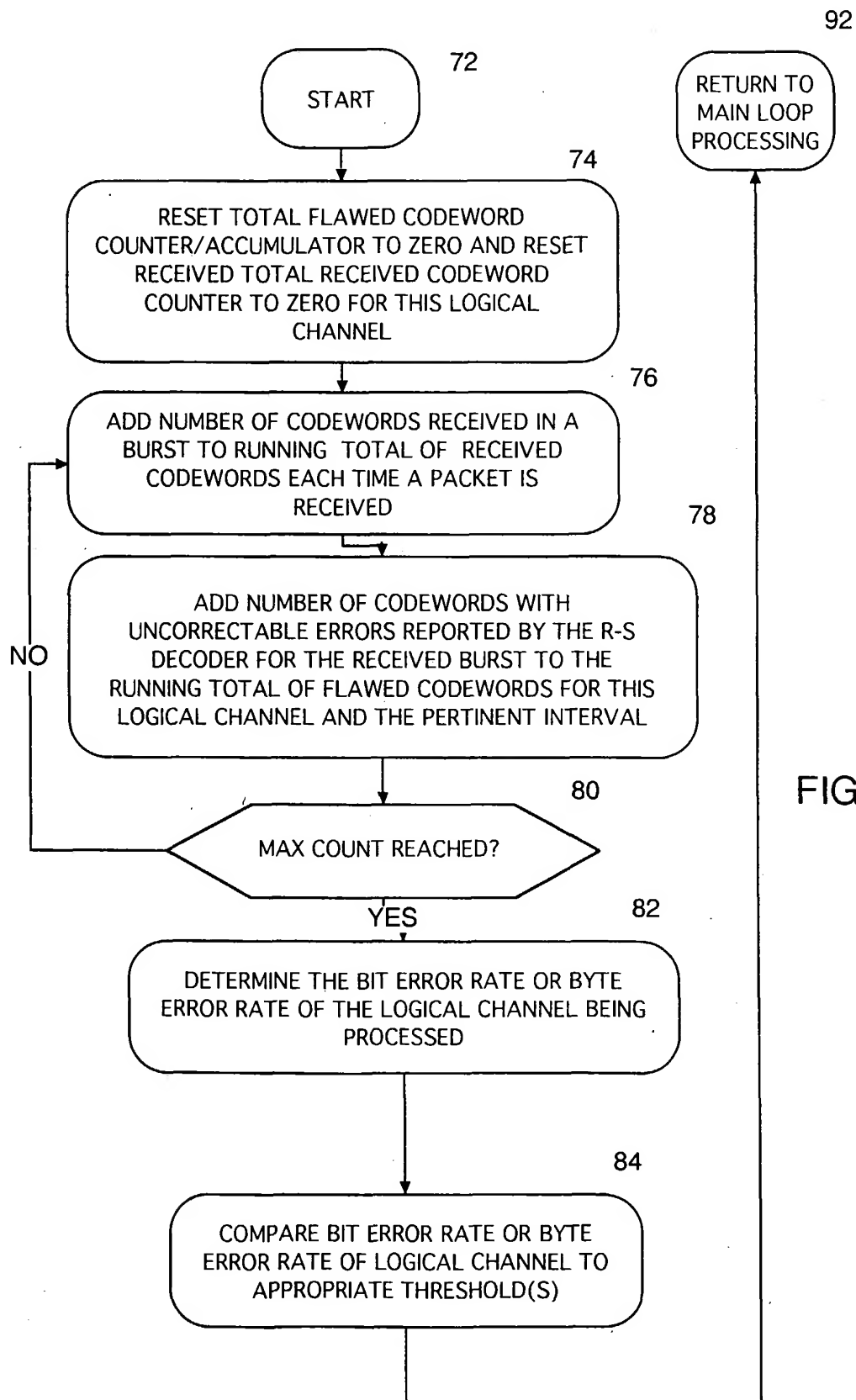


FIG. 4A

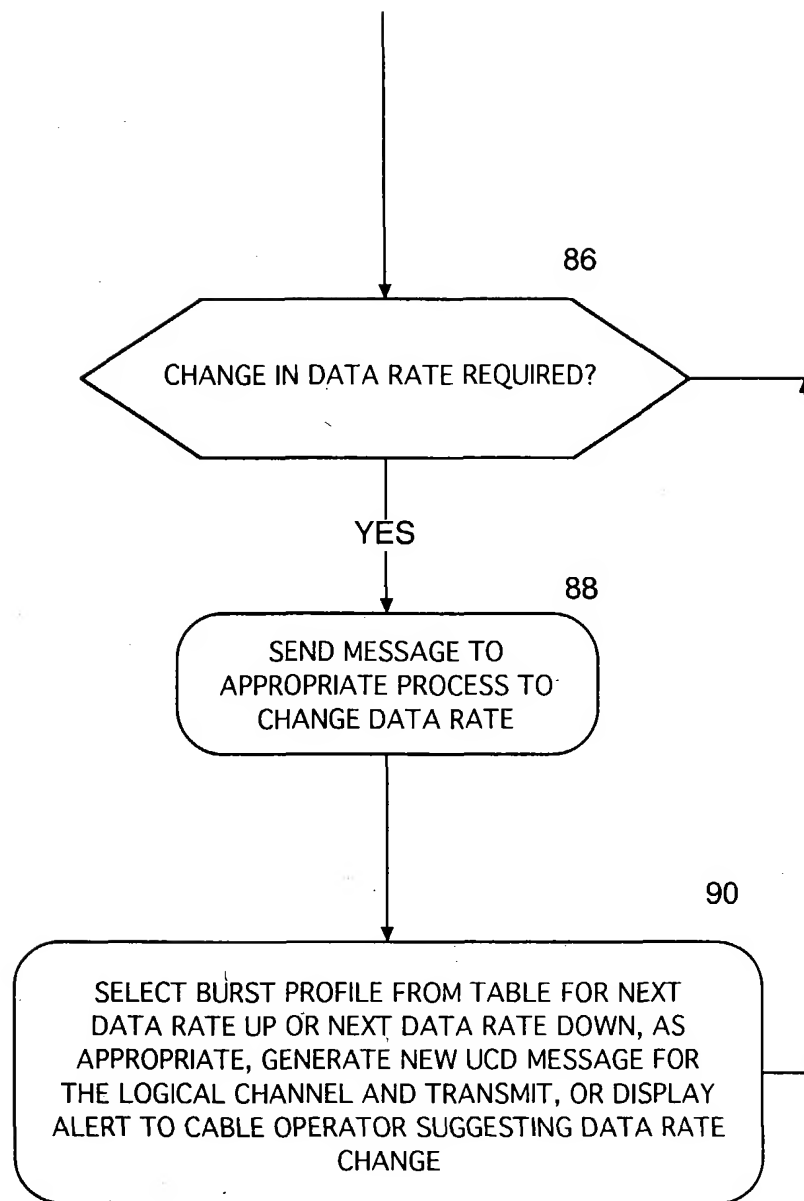


FIG. 4B

GENERIC PROCESS TO AUTOMATICALLY DETECT THE NEED TO ADAPT BIT RATE TO NOISE CONDITIONS ON A LOGICAL CHANNEL AND AUTOMATICALLY CHANGE BIT RATE

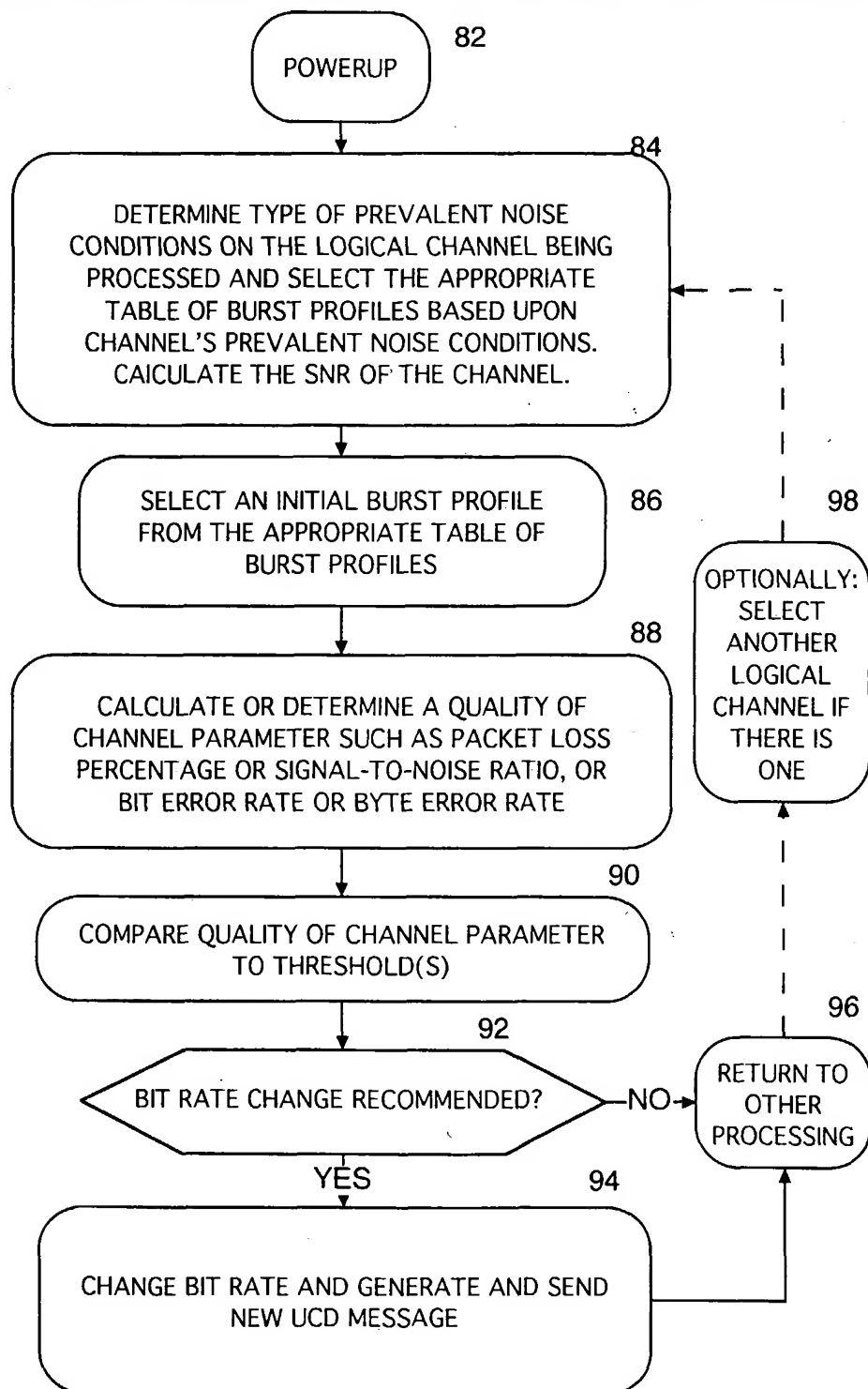


FIG. 5

GENERIC PROCESS TO AUTOMATICALLY DETECT THE NEED TO ADAPT BIT RATE TO NOISE CONDITIONS ON A LOGICAL CHANNEL AND GENERATE MESSAGE

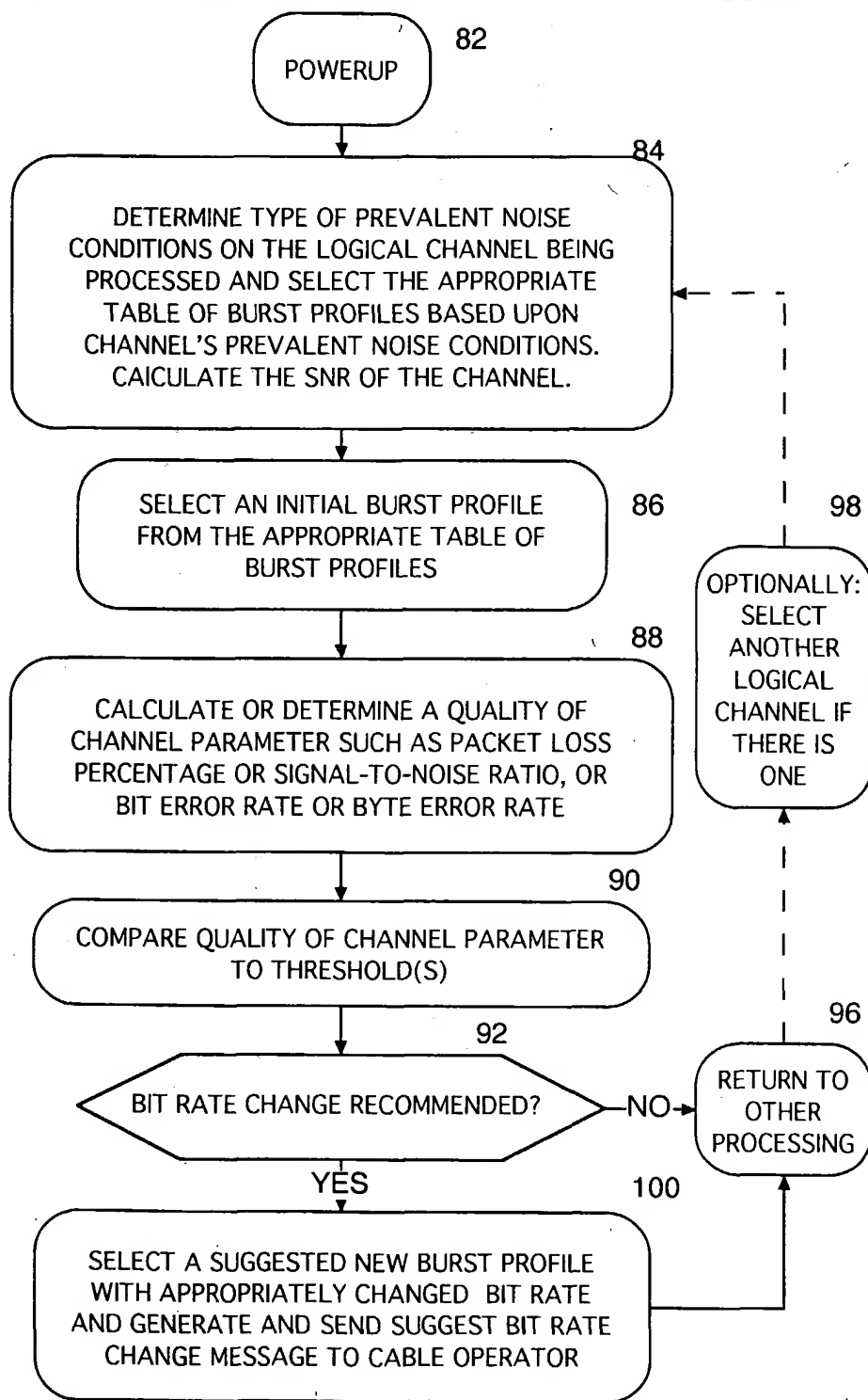


FIG. 6

Example f burst profiles of data for different AWGN SNR for DOCSIS 1.x

#	Use for Impulse Noise Channel Yes/No	% Bit Rate From Max	Net Data Rate @ 2.56 Mbps	Modulation		RS		
1	y	22%	2.3 Mbps	QPSK		k=16, t=10		
2	y	29%	3.0 Mbps	QPSK		k=28, t=10		
			3.8 Mbps	QPSK		k=58, t=10		
3	y	39%	4.0 Mbps	QPSK		k=78, t=10		
4	n	46%	4.7 Mbps	QPSK		k=235, t=10		
5	y	50%	5.1 Mbps	16-QAM		k=20, t=10		
			6.0 Mbps	16-QAM		k=28, t=10		
6	y	62%	6.4 Mbps	16-QAM		k=39, t=10		
			7.5 Mbps	16-QAM		k=55, t=10		
7	y	79%	8.1 Mbps	16-QAM		k=78, t=10		
8	y	92%	9.4 Mbps	16-QAM		k=235, t=10		
9	n	100%	10.24 Mbps	16-QAM		k=16, t=0		

FIG. 7

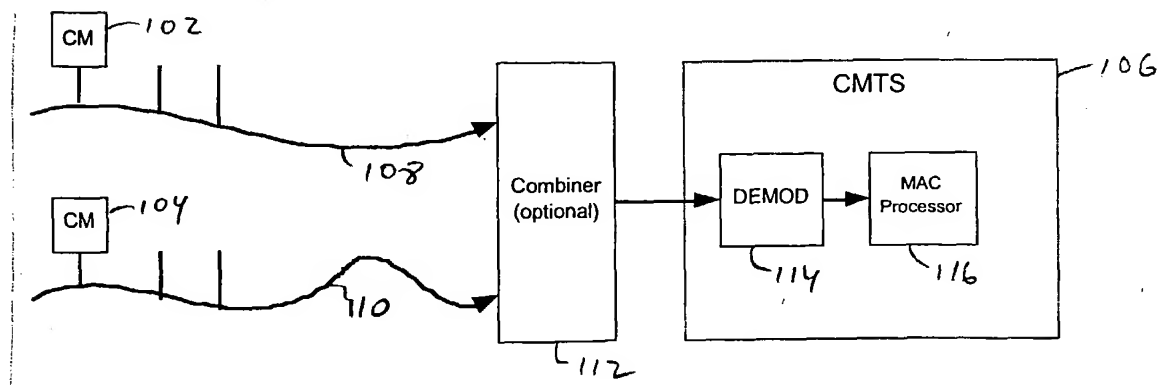
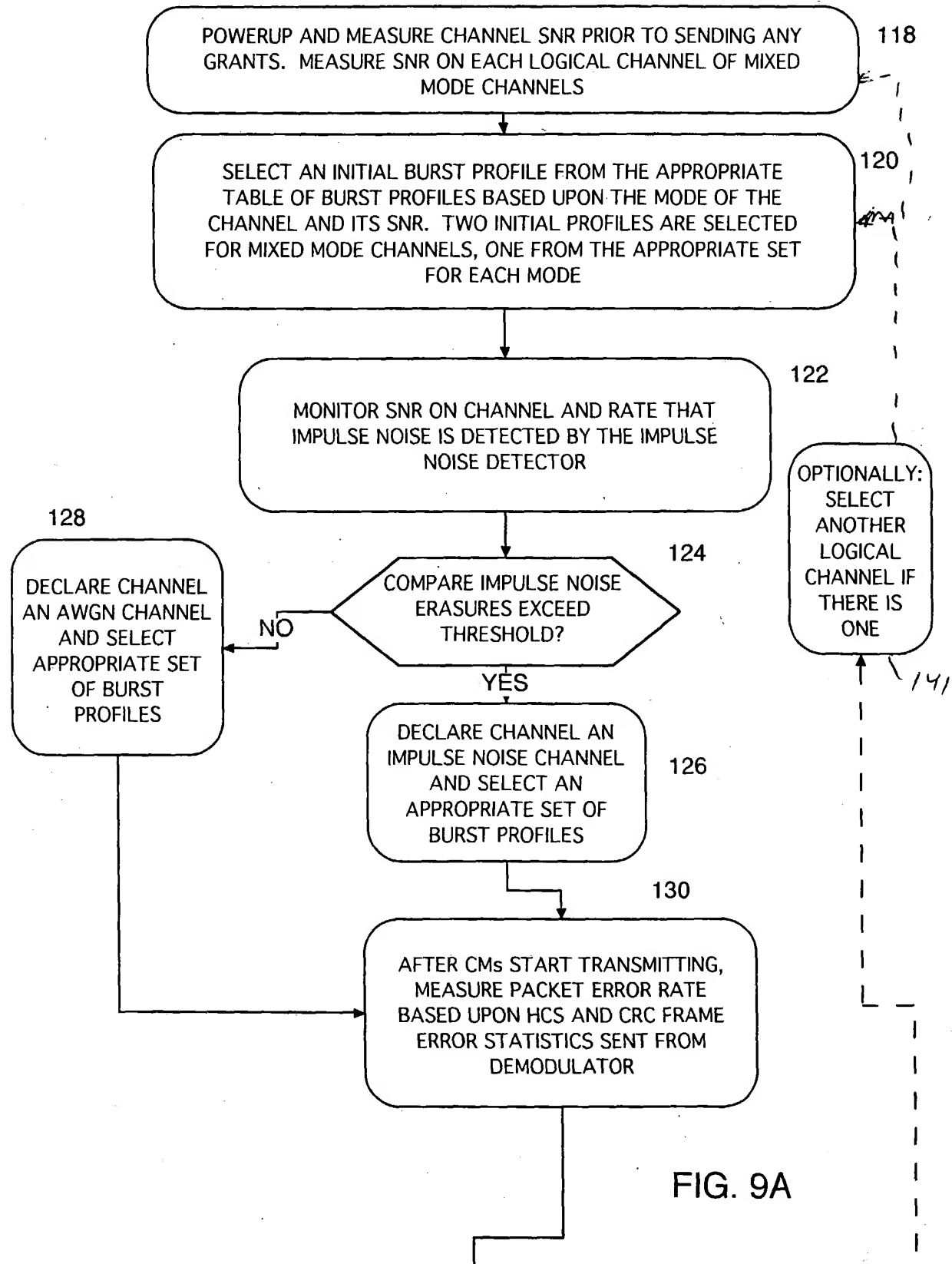


FIG. 8

GENERIC PROCESS TO AUTOMATICALLY DETECT THE NEED TO ADAPT BIT RATE
TO NOISE CONDITIONS ON A LOGICAL CHANNEL AND ADJUST THE BIT RATE



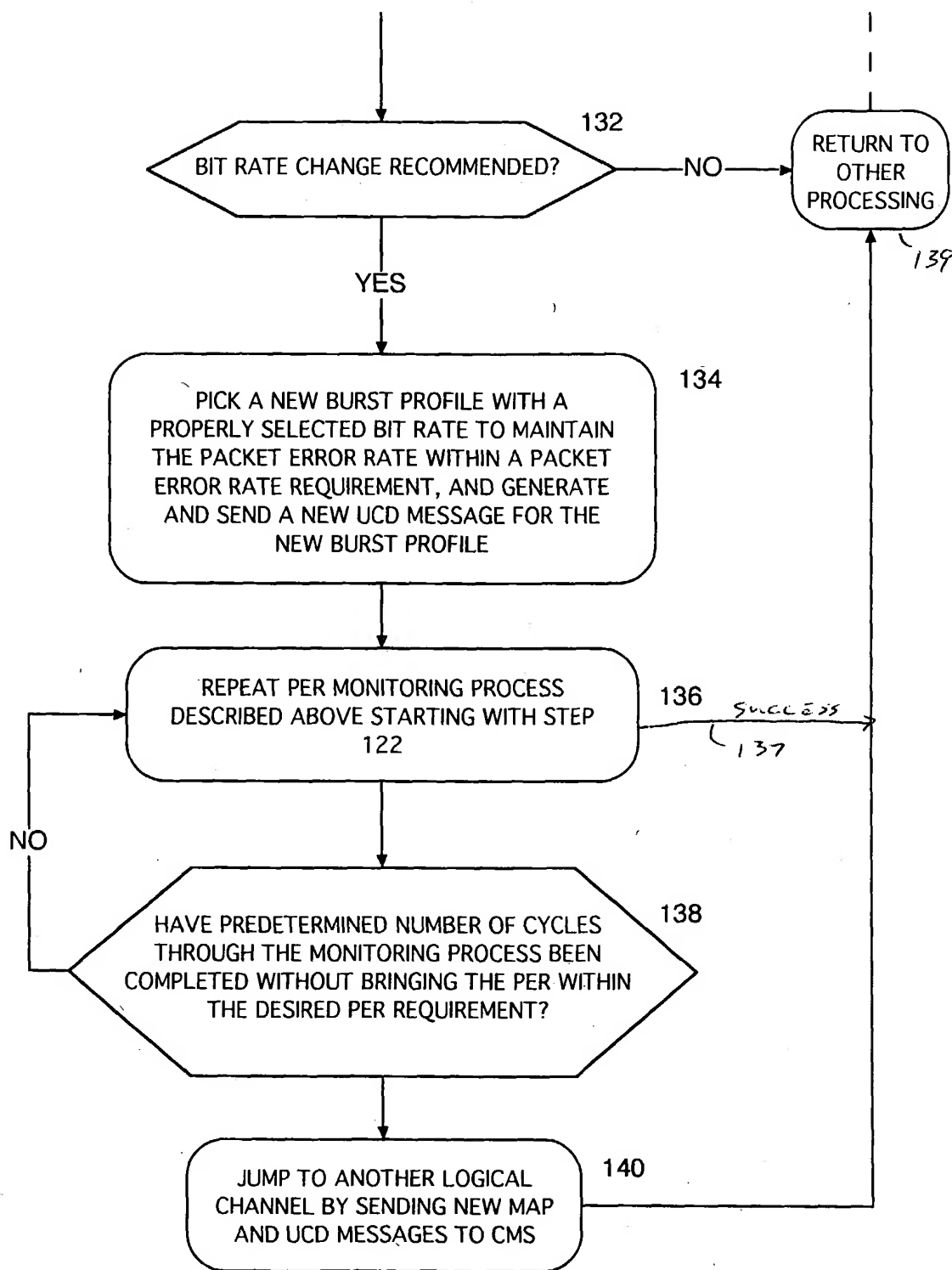


FIG. 9B